

Preface

Business and business processes continue to be transformed by information technology. Many companies have already optimized individual processes by using technology to increase productivity and reduce operating costs. Now, entire enterprises are becoming optimized through integrated infrastructures, and some businesses are even optimizing their entire value net through implementation of a dynamic information infrastructure, thus becoming on demand e-businesses. This new and changing e-business environment requires new approaches to business management.

Eight papers in this issue describe the concepts and tools used in procedures for e-business management and the implications of on demand business models. Management considerations involved in designing the enterprise for e-business on demand are discussed in the first five papers, and the valuation and adoption of technology to assist in the management of e-business are discussed in the next three papers. We are grateful to Robert Baseman of the IBM Research Division in Yorktown Heights, New York for his efforts in obtaining the papers and providing guidance for the issue.

In the first paper, Haeckel explains the need for executives to be able to react quickly to changing conditions that affect their businesses; that is, executives must know why rather than just knowing how. They must sense and respond to business conditions and not just produce products according to plans. Process knowledge alone will not suffice in the on demand environment. Innovating and improvising in an on demand business requires the use of systems knowledge in business models.

In the e-business environment, being flexible is an important quality for businesses to have as they in-

terface with one another and their customers and suppliers. But flexibility needs to be systematically defined. Shi and Daniels review the research on flexibility in manufacturing and extrapolate their findings to provide guidelines for flexibility in e-business management.

Business process modeling has been used for many years to assist businesses in attaining the most efficient and profitable operations. Business records contain detailed information about the operations of a business. Nigam and Caswell describe a mechanism that they have created, known as business artifacts. An artifact embodies a key business record in a specific component. These components are used as the basis for a technique called operational specification, or OpS, with which effective and customizable operational models can be built.

Project planning can be a complex, multifaceted procedure. Many steps involved in the process are often repeated for other projects. The knowledge acquired in project planning constitutes intellectual capital. In his paper, Singer discusses how this intellectual capital can be reused and shared for project planning and execution by means of a context-specific structure matched with a context-specific management process.

The process of making decisions both strategically and operationally is being changed because of complexities and uncertainties in the e-business environment. Kurtz and Snowden describe a new framework, Cynefin, for managing uncertainty through sense making. In particular, the Cynefin framework is designed to encourage breakthrough thinking in executive decision-making. A detailed description with examples shows how this framework works.

As enterprises transform themselves to compete in the era of e-business on demand, they are concerned with the impact of e-business initiatives on their performance. Grey et al. describe a methodology and analytic tool that have been used to improve financial and operating performance by providing a systematic approach for diagnosing problems in the value chain and a way to model the value chain end to end.

Trust is an important factor for all transactions conducted over the Internet. The degree of trust determines how quickly and to what extent people and organizations use the Internet. Trust can be enhanced by using reputation management systems. Keser describes a laboratory study that examines two such systems and the elements that make them effective.

In their paper, Huang et al. also discuss the importance of trust on the Internet. They indicate that use of the Internet will vary by country, depending on whether a country is considered to be one of high trust or low trust. If use of the Internet is slow to be accepted because of a low level of trust, the authors show that a digital divide among countries may result.

In a paper separate from the theme, Schirmer discusses how concerns about privacy affect the acceptance of a product. In particular, Schirmer relates his experiences in developing ways to protect users and relieve their concerns about privacy in regard to the Lotus Discovery Server* management system.

Web services are becoming a significant technology on the Internet. In a technical note, deMes and Rongen explore the reasons why Web services must be trustworthy and describe a scheme to ensure that they are.

In another technical note, Funderburk et al. provide an addendum to a paper of theirs on XTABLES that was published in a previous issue of the Journal.

The next issue of the *Journal* focuses on ease of use and user-centered design.

Alfred G. Davis, Associate Editor
John J. Ritsko, Editor-in-Chief

**Trademark or registered trademark of International Business Machines Corporation.